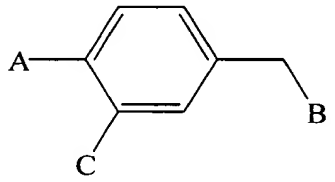
CLAIM AMENDMENTS

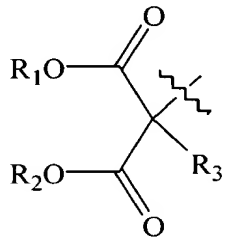
1. (Previously Presented) A compound of formula I:



(I),

wherein:

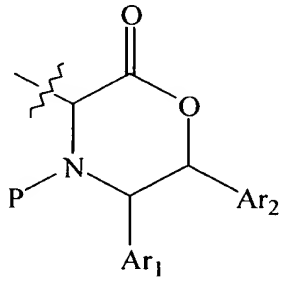
A is carboxyl, carboxyalkyl, dicarboxyalkyl, alkoxycarbonyl, alkoxycarbonylalkyl, dialkoxycarbonylalkyl, or a malonyl group of formula II:



(II),

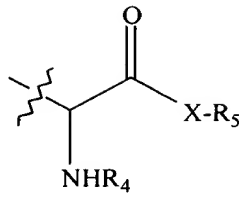
wherein R_1 and R_2 may be the same or different and are selected from the group consisting of hydrogen, alkyl, aryl, arylalkyl, alkylaryl, and heteroaryl; and R_3 is selected from the group consisting of hydrogen, halo, hydroxy, amino, alkyl, aryl, and alkoxy;

B has the formula III:



(III),

wherein P is an amine protecting group; and Ar_1 and Ar_2 are aryl groups; or the formula IV:



(IV),

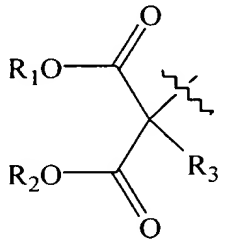
wherein X is NH or O; R_4 is hydrogen, alkyl, aryl, alkylaryl, arylalkyl, or an amine protective group; and R_5 is selected from the group consisting of hydrogen, alkyl, aryl, arylalkyl, alkylaryl, and heteroaryl; and

C is selected from the group consisting of hydrogen, hydroxyl, alkyl, alkylcarbonyl, alkylcarbonyloxy, alkoxycarbonyl, and alkoxycarbonyl alkyl;

wherein said aryl, heteroaryl, and the aryl portion of said arylalkyl and alkylaryl may be unsubstituted or substituted with a substituent selected from the group consisting of alkyl, hydroxy, halo, keto, amino, and alkoxy; with the provisos that (i) R_5 is not hydrogen when A is carboxyl or carboxyalkyl, C is hydrogen, B has the formula IV wherein R_4 is hydrogen or alkylcarbonyl, and X is NH; and (ii) R_5 is not hydrogen or alkyl when A is carboxyl or carboxyalkyl, C is hydrogen or hydroxy, B has the formula IV wherein R_4 is hydrogen or alkylcarbonyl, and X is O.

2. (Previously Presented) The compound of claim 1, wherein:

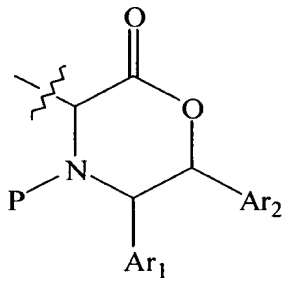
A is carboxyl, carboxyl C_1-C_6 alkyl, dicarboxy C_1-C_6 alkyl, C_1-C_6 alkoxycarbonyl, C_1-C_6 alkoxycarbonyl C_1-C_6 alkyl, C_1-C_6 dialkoxycarbonyl C_1-C_6 alkyl, or a malonyl group of formula II:



(II),

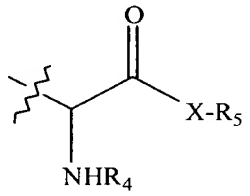
wherein R_1 and R_2 may be the same or different and are selected from the group consisting of hydrogen, C_1-C_6 alkyl, aryl, aryl C_1-C_6 alkyl, C_1-C_6 alkylaryl, and heteroaryl; and R_3 is selected from the group consisting of hydrogen, halo, hydroxy, amino, C_1-C_6 alkyl, aryl, and C_1-C_6 alkoxy;

B has the formula III:



(III),

wherein P is an amine protecting group; and Ar_1 and Ar_2 are aryl groups; or B has the formula IV:



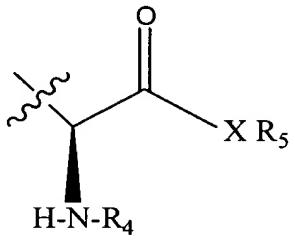
(IV),

wherein X is NH or O; R_4 is hydrogen, C_1-C_6 alkyl, aryl, C_1-C_6 alkylaryl, aryl C_1-C_6 alkyl, or an amine protecting group; and R_5 is selected from the group consisting of hydrogen, C_1-C_6 alkyl, aryl, aryl C_1-C_6 alkyl, C_1-C_6 alkylaryl, and heteroaryl; and

C is selected from the group consisting of hydrogen, hydroxyl, C_1-C_6 alkyl, C_1-C_6 alkylcarbonyl, C_1-C_6 alkylcarbonyloxy, C_1-C_6 alkoxycarbonyl, and C_1-C_6 alkoxycarbonyl C_1-C_6 alkyl; wherein said aryl, heteroaryl, and the aryl portion of said arylalkyl and alkylaryl may be unsubstituted or substituted with a substituent selected from the group consisting of C_1-C_6 alkyl, hydroxy, halo, keto, amino, and C_1-C_6 alkoxy.

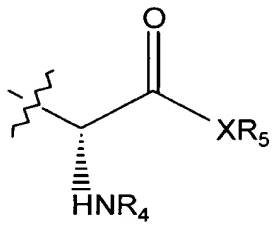
3. (Original) The compound of claim 2, wherein B has the formula IV.

4. (Previously Presented) The compound of claim 3, wherein B has the formula:



wherein X is NH or O; R_4 is hydrogen, C_1-C_6 alkyl, aryl, C_1-C_6 alkylaryl, aryl C_1-C_6 alkyl, or an amine protecting group; and R_5 is selected from the group consisting of hydrogen, C_1-C_6 alkyl, aryl, aryl C_1-C_6 alkyl, C_1-C_6 alkylaryl, and heteroaryl.

5. (Previously Presented) The compound of claim 3, wherein B has the formula:



wherein X is NH or O; R_4 is hydrogen, C_1-C_6 alkyl, aryl, C_1-C_6 alkylaryl, aryl C_1-C_6 alkyl, or an amine protecting group; and R_5 is selected from the group consisting of hydrogen, C_1-C_6 alkyl, aryl, aryl C_1-C_6 alkyl, C_1-C_6 alkylaryl, and heteroaryl.

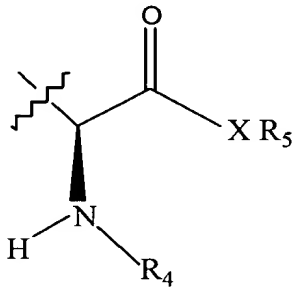
6. (Previously Presented) The compound of claim 4, wherein X is O.

7. (Original) The compound of claim 6, wherein R_4 is hydrogen.

8. (Original) The compound of claim 6, wherein R_4 is an amine protecting group.

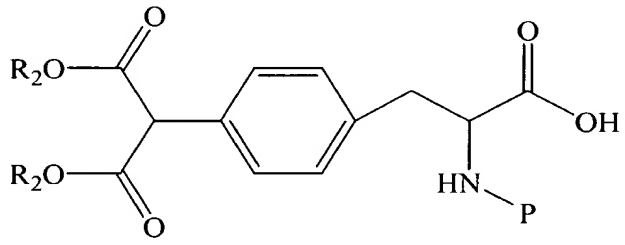
9. (Previously Presented) The compound of claim 8, wherein the amine protecting group is selected from the group consisting of fluorenylmethoxycarbonyl, tert-butoxycarbonyl, carbobenzoxy, and carbamoyl.

24. (Previously Presented) The compound of claim 1, wherein R_1 and R_2 are tert-butyl, R_3 is hydrogen, and B has the formula



wherein X is O, R_4 is fluorenylmethoxycarbonyl, and R_5 is hydrogen.

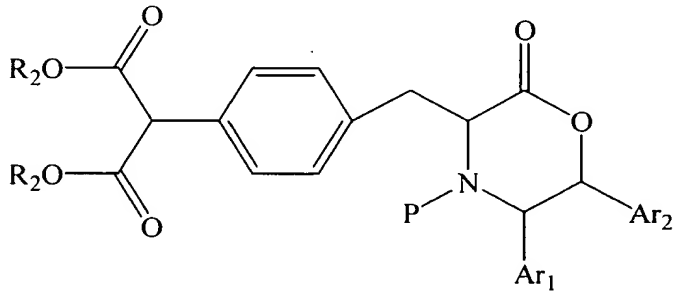
27. (Previously Presented) A process for preparing a compound of formula VIII:



(VIII),

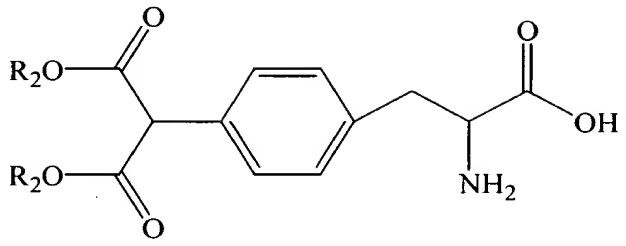
wherein R_2 is alkyl and P is an amine protecting group; the process comprising:

(a) reducing the compound of formula



(VII),

to obtain a compound of formula IX:

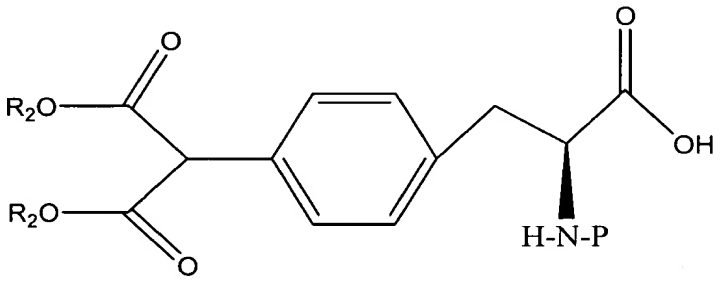


(IX);

and

(b) reacting the compound of formula IX with an amine protecting agent to obtain the compound of formula VIII.

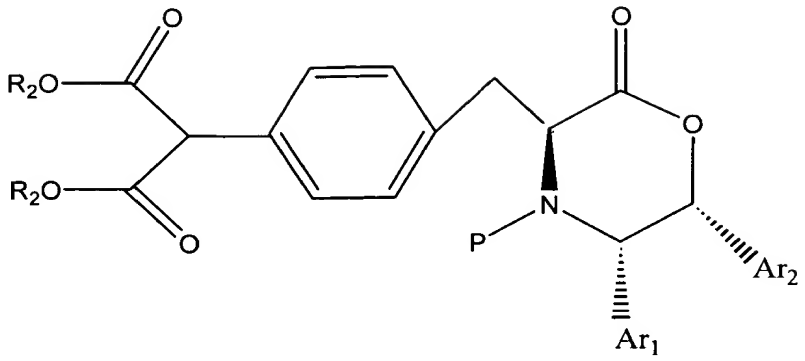
30. (Previously Presented) A process for preparing a compound of formula VIIIa:



(VIIIa)

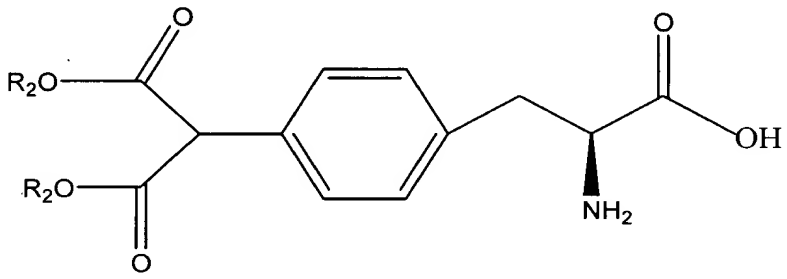
wherein R_2 is alkyl and P is an amine protecting group; the process comprising:

(a) reducing a compound of formula VII



(VIIa)

to obtain a compound of formula IXa:

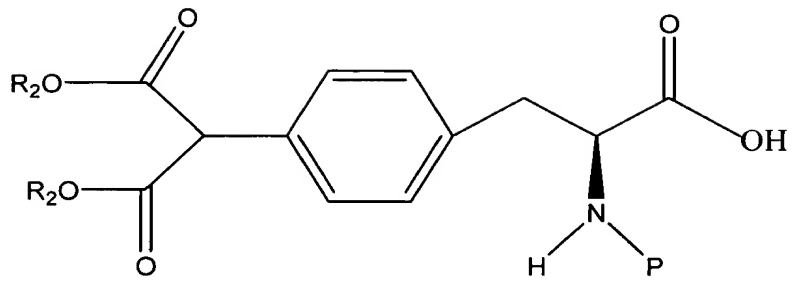


(IXa);

and

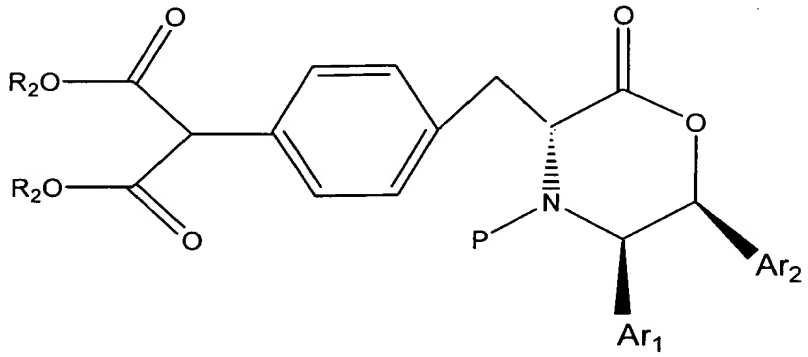
(b) reacting the compound of formula IXa with an amine protecting agent to obtain the compound of formula VIII.

31. (Previously Presented) A process for preparing a compound of the formula:

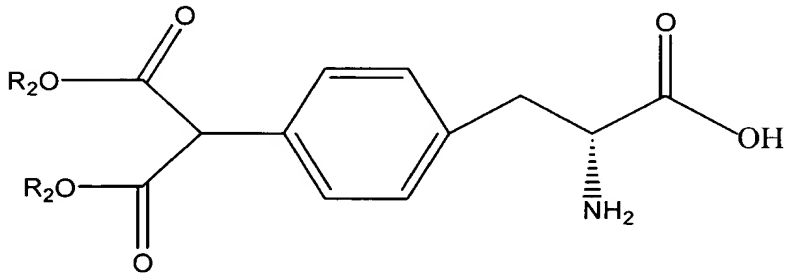


wherein R_2 is alkyl and P is an amine protecting group; the process comprising:

(a) reducing a compound of formula:



to obtain a compound of formula IXb:



(IXb);

and (b) reacting the compound of formula IXa with an amine protecting agent to obtain the compound of formula VIII.

35. (Previously Presented) A conjugate comprising a conjugant covalently linked to a compound of claim 1.

39. (Previously Presented) A compound of the formula:

$$W\text{-}Y\text{-}(AA)_n\text{-}Z$$

wherein n is 0 to 15;

Y is a phenylalanyl radical having a phenyl ring, an amine end, and a carboxyl end, the phenyl ring having one or more substituents selected from the group consisting of hydroxyl, carboxyl, formyl, carboxyalkyl, carboxyalkyloxy, dicarboxyalkyl, dicarboxyalkyloxy, dicarboxyhaloalkyl, dicarboxyhaloalkyloxy, and phosphonoalkyl, phosphonohaloalkyl, wherein the alkyl portion of the substituents may be unsubstituted or substituted with a substituent selected from the group consisting of halo, hydroxy, carboxyl, amino, aminoalkyl, alkyl, alkoxy, and keto;

W is a moiety attached to the nitrogen of Y and is selected from the group consisting of alkylcarbonyl, oxalyl, alkylaminooxalyl, arylaminooxalyl, arylalkylaminooxalyl, alkoxyoxalyl, carboxyalkyl carbonyl, heterocyclyl carbonyl, heterocyclylalkyl carbonyl, arylalkyl heterocyclylalkyl carbonyl, aryloxycarbonyl, and arylalkoxycarbonyl, wherein the aryl and alkyl portions of the substituents may be unsubstituted or substituted with a substituent selected from the group consisting of halo, hydroxy, carboxyl, amino, aminoalkyl, alkyl, alkoxy, and keto; and the heterocyclyl portion of W contains at least 4 hetero atoms selected from the group consisting of O, N, and S;

AA is an amino acid, the amine end of which is attached to the carboxyl end of Y; and

Z is an arylalkylamino or arylheterocyclyl alkylamino;

or a salt thereof;

with the proviso that W is not arylalkylamino when the phenyl ring of phenylalanyl contains a phosphonoalkyl or phosphonohaloalkyl substituent at a position para to the alkylamido group and the ortho and meta positions are unsubstituted.

40. (Previously Presented) The compound of claim 39, wherein n is 0 to 15;

Y is a phenylalanyl radical having a phenyl ring, an amine end, and a carboxyl end, the phenyl ring having one or more substituents selected from the group consisting of hydroxyl, carboxyl, formyl, carboxy C_1-C_6 alkyl, carboxy C_1-C_6 alkyloxy, dicarboxy C_1-C_6 alkyl, dicarboxy C_1-C_6 alkyloxy, dicarboxyhalo C_1-C_6 alkyl, dicarboxyhalo C_1-C_6 alkyloxy, and phosphono C_1-C_6 alkyl, phosphonohalo C_1-C_6 alkyl, wherein the alkyl portion of the

substituents may be unsubstituted or substituted with a substituent selected from the group consisting of halo, hydroxy, carboxyl, amino, aminoalkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, and keto;

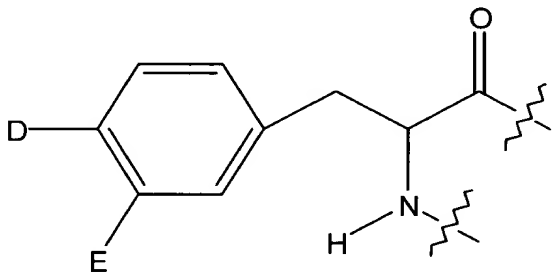
W is a moiety attached to the nitrogen of Y and is selected from the group consisting of C_1-C_6 alkylcarbonyl, oxalyl, C_1-C_6 alkylaminooxalyl, arylaminooxalyl, aryl C_1-C_6 alkylaminooxalyl, C_1-C_6 alkoxyoxalyl, carboxy C_1-C_6 alkyl carbonyl, heterocyclyl carbonyl, heterocyclyl C_1-C_6 alkyl carbonyl, aryl C_1-C_6 alkyl heterocyclyl C_1-C_6 alkyl carbonyl, aryloxycarbonyl, and aryl C_1-C_6 alkoxycarbonyl, wherein the aryl and alkyl portions of the substituents may be unsubstituted or substituted with a substituent selected from the group consisting of halo, hydroxy, carboxyl, amino, amino C_1-C_6 alkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, and keto; and the heterocyclyl portion of W contains at least 4 hetero atoms selected from the group consisting of O, N, and S;

AA is an amino acid, the amine end of which is attached to the carboxyl end of Y; and

Z is an aryl C_1-C_6 alkylamino or arylheterocyclyl C_1-C_6 alkylamino;

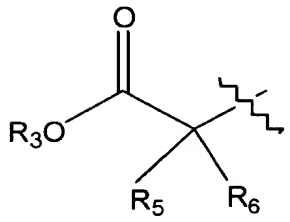
or a salt thereof.

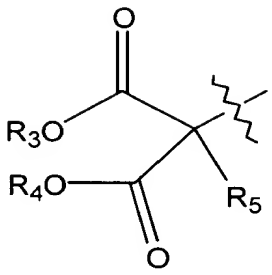
41. (Previously Presented) The compound of claim 40, wherein Y is of the formula XI:

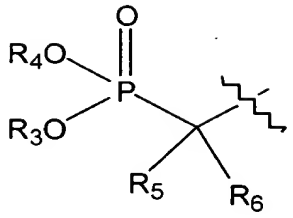


(XI)

wherein D has the formula XII, XIII, or XIV:







(XII) (XIII) (XIV)

wherein R_3 and R_4 may be the same or different and are selected from the group consisting of hydrogen, C_1-C_6 alkyl, aryl, aryl C_1-C_6 alkyl, C_1-C_6 alkaryl, and heteroaryl; and R_5 and R_6 may be the same or different and are selected from the group consisting of hydrogen, halo, hydroxy, amino, and C_1-C_6 alkoxy; and

E is selected from the group consisting of hydrogen, C_1-C_6 alkyl, C_1-C_6 alkylcarbonyl, carboxyl, and C_1-C_6 alkylcarbonyl C_1-C_6 alkyl.

42. (Previously Presented) The compound of claim 41, wherein D is of formula XII.

43. (Previously Presented) The compound of claim 41, wherein D is of formula XIII.

44. (Previously Presented) The compound of claim 41, wherein D is of formula XIV.

45. (Previously Presented) The compound of claim 42, wherein E is hydrogen.

46. (Previously Presented) The compound of claim 42, wherein E is carboxyl.

47. (Previously Presented) The compound of claim 42, wherein R_3, R_4, R_5, and R_6 are hydrogen.

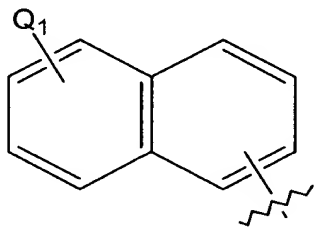
48. (Previously Presented) The compound of claim 44, wherein R_3 and R_4 are hydrogen.

49. (Previously Presented) The compound of claim 39, wherein W is selected from the group consisting of C_1-C_6 alkylcarbonyl, oxalyl, C_1-C_6 alkylaminooxalyl, arylaminooxalyl, aryl C_1-

C_6 alkylaminooxalyl, C_1-C_6 alkoxyoxalyl, carboxy C_1-C_6 alkyl carbonyl, heterocyclyl carbonyl, heterocyclyl C_1-C_6 alkyl carbonyl, aryl C_1-C_6 alkyl heterocyclyl C_1-C_6 alkyl carbonyl, aryloxycarbonyl, and aryl C_1-C_6 alkoxycarbonyl, wherein the aryl and alkyl portions of the substituents may be unsubstituted or substituted with a substituent selected from the group consisting of halo, hydroxy, carboxyl, amino, amino C_1-C_6 alkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, and keto; and the heterocyclyl portion of W contains at least 4 hetero atoms selected from the group consisting of O, N, and S.

67. (Previously Presented) The compound of claim 39, wherein Z is aryl C_1-C_6 alkylamino.

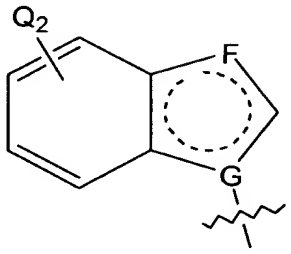
68. (Previously Presented) The compound of claim 67, wherein the aryl portion of Z has the formula:



wherein Q_1 is hydrogen or a substituent selected from the group consisting of hydroxyl, halo, C_1-C_6 alkyl, C_1-C_6 alkoxy, amino, and C_1-C_6 acylamino.

72. (Previously Presented) The compound of claim 39, wherein Z is aryl heterocyclyl C_1-C_6 alkylamino.

73. (Previously Presented) The compound of claim 72, wherein the heterocyclyl portion of Z has the formula:



wherein Q_2 is hydrogen or a substituent selected from the group consisting of hydroxyl, halo, C_1-C_6 alkyl, C_1-C_6 alkoxy, amino, and C_1-C_6 acylamino, and F and G are independently selected from the group consisting of C, N, O, and S.

78. (Previously Presented) The compound of claim 39, wherein said amino acid is selected from the group consisting of glycine, alanine, valine, norvaline, leucine, iso-leucine, norleucine, α-amino n-decanoic acid, serine, homoserine, threonine, methionine, cysteine, S-acetylaminomethyl-cysteine, proline, trans-3- and trans-4-hydroxyproline, phenylalanine, tyrosine, 4-aminophenylalanine, 4- nitrophenylalanine, 4-chlorophenylalanine, 4-carboxyphenylalanine, β-phenylserine β-hydroxyphenylalanine, phenylglycine, α-naphthylalanine, cyclohexylalanine, cyclohexylglycine, tryptophan, indoline-2-carboxylic acid, 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid, aspartic acid, asparagine, aminomalonic acid, aminomalonic acid monoamide, glutamic acid, glutamine, histidine, arginine, lysine, N'-benzyl-N'-methyl-lysine, N',N'-dibenzyl-lysine, 6-hydroxylysine, ornithine, α-aminocyclopentane carboxylic acid, α-aminocyclohexane carboxylic acid, α-aminocycloheptane carboxylic acid, α-(2-amino-2-norbornane)-carboxylic acid, α,γ-diaminobutyric acid, α,β-diaminopropionic acid, homophenylalanine, and α-tert-butylglycine.

85. (Previously Presented) A composition comprising a pharmacologically acceptable carrier and a compound of claim 39.

86. (Previously Presented) A method for inhibiting an SH2 domain from binding with a phosphoprotein comprising contacting an SH2 domain with a compound of claim 39.

91. (Previously Presented) A method for inhibiting SH2 domain binding comprising exposing a material containing an SH2 domain to a compound of claim 39.

92. (Previously Presented) A method for determining the presence of an SH2 domain in a material comprising:
(a) exposing a sample of said material to a SH2 binding compound and obtaining a first binding result;
(b) exposing another sample of said material to a compound of claim 39 and obtaining a second binding result; and
(c) comparing the first and second binding results to determine whether an SH2 domain is present in the material.

93. (Previously Presented) A method of preventing or treating a disease, state, or condition in a mammal comprising administering a compound of claim 39.

107. (Previously Presented) A method of enhancing the therapeutic effect of a treatment rendered to a mammal that has been afflicted with a disease, state, or condition, comprising administering to the mammal a compound of claim 39 in conjunction with the treatment.

113. (Previously Presented) A method of inhibiting the MAP kinase activity in a mammal comprising administering to the mammal a compound of claim 39.

116. (Previously Presented) A compound of the formula:

$$W\text{-}Y\text{-}(AA)_n\text{-}Z$$

wherein n is 0 to 15;

Y is a phenylalanyl radical having a phenyl ring, an amine end, and a carboxyl end, the phenyl ring having (i) dicarboxy C_1-C_6 alkyl , (ii) hydroxyl and carboxy C_1-C_6 alkyl, (iii) carboxyl and carboxy C_1-C_6 alkyl, or (iv) dicarboxyhalo C_1-C_6 alkyl, or dicarboxyhalo C_1-C_6 alkyloxy; or an ester of (i), (ii), (iii), or (iv); wherein the alkyl portion of the substituents may be unsubstituted or substituted with a substituent selected from the group consisting of halo, hydroxy, carboxyl, amino, aminoalkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, and keto;

W is a moiety attached to the nitrogen of Y and is selected from the group consisting of C_1-C_6 alkylcarbonyl, oxalyl, C_1-C_6 alkylaminooxalyl, arylaminooxalyl, aryl C_1-C_6 alkylaminooxalyl, C_1-C_6 alkoxyoxalyl, carboxy C_1-C_6 alkyl carbonyl, heterocyclyl carbonyl, heterocyclyl C_1-C_6 alkyl carbonyl, aryl C_1-C_6 alkyl heterocyclyl C_1-C_6 alkyl carbonyl, aryloxycarbonyl, and aryl C_1-C_6 alkoxycarbonyl, wherein the aryl and alkyl portions of the substituents may be unsubstituted or substituted with a substituent selected from the group

consisting of halo, hydroxy, carboxyl, amino, amino C_1-C_6 alkyl, C_1-C_6 alkyl, C_1-C_6 alkoxy, and keto; and the heterocyclyl portion of W contains at least 4 hetero atoms selected from the group consisting of O, N, and S;

AA is an amino acid, the amine end of which is attached to the carboxyl end of Y; and

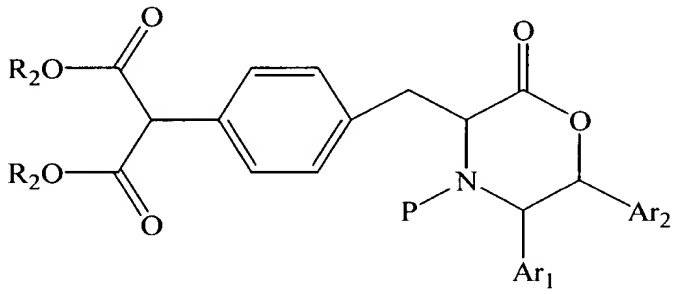
Z is an aryl C_1-C_6 alkylamino or arylheterocyclyl C_1-C_6 alkylamino;

or a salt thereof.

117. (Previously Presented) A composition comprising a pharmacologically acceptable carrier and a compound of claim 116.

118. (Previously Presented) A method for inhibiting an SH2 domain from binding with a phosphoprotein comprising contacting an SH2 domain with a compound of claim 116.

119. (Previously Presented) A process for the preparation of a compound of formula VII:



(VII),

wherein R_2 is alkyl, P is an amine protecting group, and Ar_1 and Ar_2 are aryl; the process comprising:

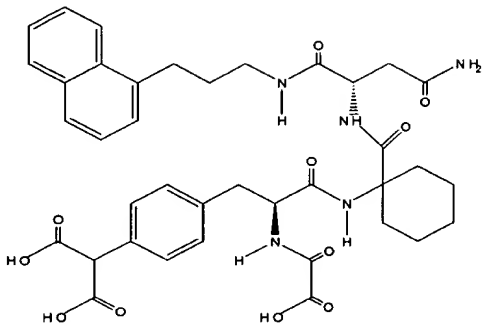
(a) converting a p-halotoluene to a p-tolyl-malonic acid dialkyl ester by contacting the p-halotoluene with a dialkylmalonate and a cuprous halide;

(b) halogenating the p-tolyl-malonic acid dialkyl ester to obtain a (4-halomethylphenyl)-malonic acid dialkyl ester; and

(c) contacting the (4-halomethylphenyl)-malonic acid ester with a benzyl-6-oxo-2,3-diaryl-4-morpholine to obtain the compound of formula VII.

Please add the following new claims:

120. (New) The compound of claim 39, which is of the formula:



121. (New) A composition comprising a pharmacologically acceptable carrier and the compound of claim 120.

122. (New) A method for inhibiting an SH2 domain from binding with a phosphoprotein comprising contacting an SH2 domain with the compound of claim 120.

123. (New) A method of preventing or treating a disease, state, or condition, in a mammal comprising administering the compound of claim 120.